



KNOWLEDGE, PRACTICES AND ATTITUDES OF GENERAL PRACTITIONERS TOWARDS IRRITABLE BOWEL SYNDROME: A CROSS SECTIONAL STUDY

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Abstract

Background: Irritable bowel syndrome (IBS) is a functional bowel disorder that has colossal impact on the quality of life while the patient's views have been explored in detail in a large no. of studies the opinions of the general physicians need to be explored as they are primary route of referral to medical specialists

Objective: To assess knowledge, practices and attitudes of general practitioners towards irritable bowel syndrome

Materials and Methods: This cross sectional study was conducted in Peshawar after the approval of research proposal by research committee of MMC General Hospital Peshawar 15th January 2023 to 15th June 2023. The inclusion criteria was general practitioners working in different clinics and hospitals. The medical specialists and gastroenterologists were excluded from the study. Total sample size was 100 with non-probability convenient sampling as the technique. The participants were asked to fill a questionnaire after explaining the pros and cons of the study. The data analysis was done by SPSS version 22. The frequencies and percentages were applied for categorical data whereas Mean and SD were applied for quantitative data. The Chi Square test was applied taking a p value of 0.05 or less as significant

Results: The mean age of the respondents was 38 years with equal male to female ratio. 58% of the general practitioners were from urban areas while rest of them were from rural settings. The knowledge questions were assessed by true, false and don't know. Regarding IBS a hereditary disease 44% admitted it to be true, 25% false and 31% don't know. IBS affects only women with true responses 48%, 32% false and 20% saying don't know. IBS is a life-threatening disease 51% said to be true, 27% false and 22% don't know. IBS symptoms affect the patients' daily life with true responses about 43%, false 34% and 23% don't know. Regarding practices and answering 'Do you take your medications prescribed for IBS regularly?' 58% said yes and 42% said No, 'Do you avoid gluten containing products (wheat, barley and rye) containing food products that might worsen your symptoms?' 65% Yes and 35% No, 'Do you perform yoga?' 48% yes and 52% No. The

responses of the participants in terms of their attitudes towards IBS can be seen in tables below. Significant association for responses of the participants for After following advice from your physician regarding diet, life style, and medications, do you feel that your daily life is less affected now with a p value of 0.03

Conclusion: This study concluded that general practitioners had satisfactory level of awareness about the disease and that is a good omen for appropriate referral and management by the trained physicians and experts in the field

Introduction

Irritable bowel syndrome (IBS) is a functional bowel and is due to altered visceral sensitivity of the gut and in some cases, there is a positive family history. It is more common in females and young individuals attributed to difficult life style and has a prevalence of 15 to 25%. ¹The disruption of normal intestinal flora has also been held responsible for pathogenesis of IBS. The gold standard for the diagnosis of irritable bowel syndrome is Rome criteria that categorized it into three different types. This disease has huge financial implications resulting in massive costs of 1 billion in the United States.²

The main symptoms of the disease are change in the bowel habits, diarrhea followed by constipation, disturbed sleep, emotional outbursts, tendency to cry, feeling of going to the toilet repeatedly and not having adequate defecation, bloating and flatulence. One of the major concerns is when the patients bleeding per rectum and unintentional weight loss. ³That is the worrying time for the patient and treating physician. They go for more invasive investigations like CT abdomen and colonoscopy to locate the cause of blood in the stool. ⁴Complacency has no place in such situations and one has to act sharply and vigilantly in the best interest of the patients. There is increased tendency to do unnecessary investigations like full blood count, helicobacter pylori and other tests without realizing the gravity of the situation

The general practitioners and the family care physicians have a massive role in the management of diseases such as gastroesophageal reflux disease and irritable bowel syndrome. ⁵They act as a triage in which the patients are being assessed first and then referred to appropriate specialties in tertiary care hospitals fully equipped with different facilities. ⁶The key to high quality treatment is the identification of the patients with red flag symptoms as they are in dire need of screening colonoscopy and subsequent treatment. People who are elderly and those having positively family history need to be pursued more aggressively. ⁷They say eyes cant see what mind doesn't know .So checking the knowledge,perception and attitudes of the general practitioners does carry a lot of importance.⁸ They serve as a bridging point.⁹ The main aim of the study is to assess the s knowledge, perception and attitudes of general practitioners towards irritable bowel syndrome.

Materials and Methods:

This cross sectional study was conducted in Peshawar after the approval of research proposal by research committee of MMC General Hospital Peshawar .The inclusion criteria was general practitioners working in clinics and hospitals. The medical specialists and gastroenterologists were excluded from the study Total sample size was 100 with non probability convenient sampling as the technique . The participants were asked to fill a questionnaire after explaining the pros and cons the study. The data analysis was done by SPSS version 22. The frequencies and percentages were applied for categorical data where as Mean and SD were applied for quantitative data. The Chi Square test was applied taking a p value of 0.05 or less as significant.

Results:

daily life with true responses about 43%, false 34% and 23% don't know . Regarding practices and answering Do you take your medications prescribed for IBS regularly? 58% said yes and 42% said No,Do you avoid gluten containing products (wheat ,barley and rye) containing food products that might worsen your symptoms? 65% Yes and 35% No, Do you perform yoga 48% yes and 52% No.

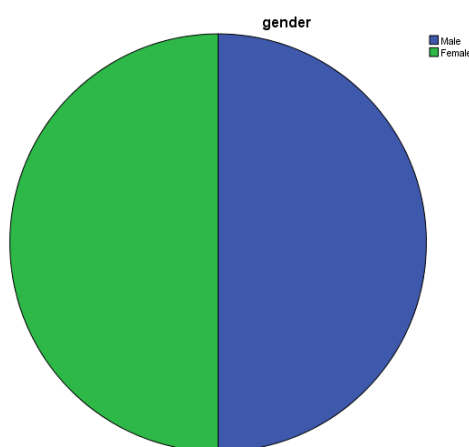
The responses of the participants in terms of their attitudes towards IBS can be seen in tables below. Significant association for responses of the participants for After following advice from your physician regarding diet, life style, and medications, do you feel that your daily life is less affected now with a p value of 0.03. The mean age of the respondents was 38 years with equal male to female ratio .58% of the general practitioners were from urban areas while rest of them were from rural settings. The knowledge questions were assessed by true, false and don't know. Regarding IBS a hereditary disease 44% admitted it to be true, 25% false and 31% don't know. IBS affects only women with true responses 48%, 32% false and 20% saying don't know. IBS is a life-threatening disease 51% said to be true, 27% false and 22% don't know. IBS symptoms affects the patients

Descriptive Statistics

	N	Mean	
	Statistic	Statistic	Std. Error
Age	100	37.9800	1.00171
Valid N (listwise)	100		

GP

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Urban GPS	58	58.0	58.0	58.0
Rural GPS	42	42.0	42.0	100.0
Total	100	100.0	100.0	



KNOWLEDGE

		Frequency	Percent	Valid Percent	Cumulative Percent
IBS is a hereditary disease	Valid True	44	44.0	44.0	44.0
	False	25	25.0	25.0	69.0
	Do Not Know	31	31.0	31.0	100.0
	Total	100	100.0	100.0	
		Frequency	Percent	Valid Percent	Cumulative Percent
IBS affects only women	Valid True	48	48.0	48.0	48.0
	False	32	32.0	32.0	80.0
	Do not Kbow	20	20.0	20.0	100.0
	Total	100	100.0	100.0	
		Frequency	Percent	Valid Percent	Cumulative Percent
IBS is a life threatening	Valid True	51	51.0	51.0	51.0

disease		False	27	27.0	27.0	78.0
		Do not know	22	22.0	22.0	100.0
		Total	100	100.0	100.0	
			Frequency	Percent	Valid Percent	Cumulative Percent
IBS symptoms considerably affect patients daily life	Valid	True	43	43.0	43.0	43.0
		False	34	34.0	34.0	77.0
		Do Not Know	23	23.0	23.0	100.0
		Total	100	100.0	100.0	
			Frequency	Percent	Valid Percent	Cumulative Percent
IBS is more common than chronic diseases such as diabetes and hypertension	Valid	True	49	49.0	49.0	49.0
		False	33	33.0	33.0	82.0
		Do not know	18	18.0	18.0	100.0
		Total	100	100.0	100.0	

PRACTICES					
		Frequency	Percent	Valid Percent	Cumulative Percent
Do you take your medications prescribed for IBS regularly?	Valid Yes	58	58.0	58.0	58.0
	No	42	42.0	42.0	100.0
	Total	100	100.0	100.0	
		Frequency	Percent	Valid Percent	Cumulative Percent
Do you avoid gluten containing products(wheat ,barley and rye) containing food products that might worsen your symptoms?	Valid Yes	65	65.0	65.0	65.0
	No	35	35.0	35.0	100.0
	Total	100	100.0	100.0	
		Frequency	Percent	Valid Percent	Cumulative Percent
Do you perform yoga/meditation to minimize the stress/anxiety?	Valid Yes	48	48.0	48.0	48.0
	No	52	52.0	52.0	100.0
	Total	100	100.0	100.0	

ATTITUDES						
		Frequency	Percent	Valid Percent	Cumulative Percent	
For treating IBS medications should be taken in consultation with physicians only	Valid	Strongly Agree	32	32.0	32.0	32.0
		Agree	33	33.0	33.0	65.0
		Neutral	17	17.0	17.0	82.0
		Disagree	12	12.0	12.0	94.0
		Strongly disagree	6	6.0	6.0	100.0
		Total	100	100.0	100.0	
		Frequency	Percent	Valid Percent	Cumulative Percent	
Dietary and life style changes are critical to manage IBS symptoms	Valid	Strongly agree	26	26.0	26.0	26.0
		Agree	27	27.0	27.0	53.0
		Neutral	28	28.0	28.0	81.0
		Disagree	16	16.0	16.0	97.0
		Strongly disagree	3	3.0	3.0	100.0
		Total	100	100.0	100.0	
		Frequency	Percent	Valid Percent	Cumulative Percent	
IBS management requires good compliance to drugs required by your physician	Valid	Strongly agree	25	25.0	25.0	25.0
		Agree	47	47.0	47.0	72.0
		Neutral	18	18.0	18.0	90.0
		Disagree	7	7.0	7.0	97.0
		Strongly disagree	3	3.0	3.0	100.0
		Total	100	100.0	100.0	

		Frequency	Percent	Valid Percent	Cumulative Percent
Controlling stress/anxiety is as important as taking regular medications for IBS management	Valid Strongly agree	44	44.0	44.0	44.0
	Agree	34	34.0	34.0	78.0
	Neutral	15	15.0	15.0	93.0
	Disagree	5	5.0	5.0	98.0
	Strongly disagree	2	2.0	2.0	100.0
	Total	100	100.0	100.0	
		Frequency	Percent	Valid Percent	Cumulative Percent
Dietary and life style changes are critical to manage IBS symptoms	Valid Strongly agree	26	26.0	26.0	<u>26.0</u>
	Agree	27	27.0	27.0	<u>53.0</u>
	Neutral	28	28.0	28.0	<u>81.0</u>
	Disagree	16	16.0	16.0	<u>97.0</u>
	Strongly disagree	3	3.0	3.0	<u>100.0</u>
	Total	100	100.0	100.0	

After following advice from your physician regarding diet, life style, and medications, do you feel that your daily life is less affected now?

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	7.873 ^a	4	.037
Likelihood Ratio	10.200	4	
Linear-by-Linear Association	6.870	1	
N of Valid Cases	100		

		Frequency	Percent	Valid Percent	Cumulative Percent
Dietary and life style changes are critical to manage IBS symptoms	Valid Strongly agree	26	26.0	26.0	26.0
	Agree	27	27.0	27.0	53.0
	Neutral	28	28.0	28.0	81.0
	Disagree	16	16.0	16.0	97.0
	Strongly disagree	3	3.0	3.0	100.0
	Total	100	100.0	100.0	

Discussions:

GPs had overwhelming similar thoughts about irritable bowel disease reflected by various responses to different components of questionnaire.¹⁰ Regarding IBS a hereditary disease 44% admitted it to be true, 25% false and 31% don't know. IBS affects only women with true responses 48%, 32% false and 20% saying don't know. IBS is a life-threatening disease 51% said to be true, 27% false and 22% don't know. IBS symptoms affects the patients daily life with true responses about 43%, false 34% and 23% don't know. Regarding practices and answering Do you take your medications prescribed for IBS regularly? 58% said yes and 42% said No, Do you avoid gluten containing products (wheat, barley and rye) containing food products that might worsen your symptoms? 65% Yes and 35% No. There was a study published by university of Leeds titled General Practitioners' Perceptions of Irritable Bowel Syndrome: a Q-Methodological Study. All the general practitioner unanimously agreed that IBS patients have a psychological component This overshadow earlier argument about IBS as a disease having organic and psychological basis simultaneously.¹⁰ The overwhelming accord indicated that all GP had a common school of thoughts. There was some disparity in thoughts about other etiological factors. Even the primary care physicians who were inclined towards pathological risk factors also approved the implication of stress and disturbed mental health. However, a small number of them having variable views agreed that IBS is classified as a physical disease with organic basis. Qualitative studies have implicated that some clinicians have

expressed uncertain views about the etiology of IBS, along with the hypothesis that the disorder has a huge psychological basis. Previous studies checking the views of patients and specialists about functional disorders, have given mixed beliefs about the possible causes of IBS. Q-methodology does offer a new semi-quantitative method for identifying and systematically describing patterns of conflicting beliefs and thus priorities for identification of different factors for the disease is inevitable.¹¹ Another study meant for identifying thought provoking and relevant perceptions of primary care physicians and general practitioners' knowledge about the treatment of post infectious IBS. Overall, they had a satisfactory understanding of common foodborne bacteria leading to functional bowel disorders such as PI-IBS.¹¹ The awareness of primary care physicians as a phenomenon is present in a majority, but less than 50% of physicians surveyed would discuss this outcome in their gastrointestinal patients. Given the known frequency of irritable bowel syndrome after infections, a complete discussion with such patients is very vital.¹²

This study has highlighted the awareness level of primary care physicians and GPs. We need to do multicenter trails for arousing the curiosity of people for laying emphasis on formulating guidelines for the treatment of this disease.¹³

Conclusion:

This study concluded that general practitioners had satisfactory level of awareness about the disease and that is a good omen for appropriate referral and management by the trained physicians and experts in the field

References:

1. Rej A, Avery A, Aziz I, Black CJ, Bowyer RK, Buckle RL, et al. Diet and irritable bowel syndrome: an update from a UK consensus meeting. *BMC Med* [Internet]. 2022;20(1):1–11. Available from: <https://doi.org/10.1186/s12916-022-02496-w>
2. Chen Y, Lian B, Li P, Yao S, Hou Z. Studies on irritable bowel syndrome associated with anxiety or depression in the last 20 years: A bibliometric analysis. *Front Public Heal*. 2022;10.
3. Moayyedi P, Mearin F, Azpiroz F, Andresen V, Barbara G, Corsetti M, et al. Irritable bowel syndrome diagnosis and management: A simplified algorithm for clinical practice. *United Eur Gastroenterol J*. 2017;5(6):773–88.
4. Tai D. This is a repository copy of Diagnostic yield of colonoscopy in patients with symptoms compatible with Rome IV functional bowel disorders . White Rose Research Online URL for this paper : Version : Accepted Version Article : Asghar , Z ., Thoufeeq , M ., . 2022;
5. Talley NJ, Zand Irani M. Optimal management of severe symptomatic gastroesophageal reflux disease. *J Intern Med*. 2021;289(2):162–78.
6. MacFarlane B. Management of gastroesophageal reflux disease in adults: a pharmacist's perspective. *Integr Pharm Res Pract*. 2018;Volume 7:41–52.
7. Vajravelu RK, Shapiro JM, Ni J, Thanawala SU, Lewis JD, El-Serag HB. Risk for Post-Colonoscopy Irritable Bowel Syndrome in Patients With and Without Antibiotic Exposure: A Retrospective Cohort Study. *Clin Gastroenterol Hepatol* [Internet]. 2022;20(6):e1305–22. Available from: <https://doi.org/10.1016/j.cgh.2021.08.049>
8. Törnblom H, Goosey R, Wiseman G, Baker S, Emmanuel A. Understanding symptom burden and attitudes to irritable bowel syndrome with diarrhoea: Results from patient and healthcare professional surveys. *United Eur Gastroenterol J*. 2018;6(9):1417–27.
9. Algabr GA, Alotaibi TK, Alshaikh AM. Assessment of Knowledge, Attitude and Practice towards Irritable Bowel Syndrome and Risk Factors in Riyadh City, 2017. *Egypt J Hosp Med*. 2018;70(8):1377–80.
10. Bradley S, Alderson S, Ford AC, Foy R. General practitioners' perceptions of irritable bowel syndrome: A Q-methodological study. *Fam Pract*. 2018;35(1):74–9.
11. Austhof E, Schaefer K, Faulkner J, Bach L, Riddle M, Pogreba-Brown K. Knowledge and practices of primary care physicians or general practitioners treating post-infectious Irritable

- Bowel Syndrome. *BMC Gastroenterol.* 2020;20(1):1–6.
12. McGhie-Fraser B, Lucassen P, Ballering A, Abma I, Brouwers E, van Dulmen S, et al. Persistent somatic symptom related stigmatisation by healthcare professionals: A systematic review of questionnaire measurement instruments. *J Psychosom Res* [Internet]. 2023;166(October 2022):111161. Available from: <https://doi.org/10.1016/j.jpsychores.2023.111161>
 13. Ceccherini C, Daniotti S, Bearzi C, Re I. Evaluating the Efficacy of Probiotics in IBS Treatment Using a Systematic Review of Clinical Trials and Multi-Criteria Decision Analysis. *Nutrients.* 2022;14(13).